

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 10 FEB 2006

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Applicant's or agent's file reference 2032704PC/or	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/FI2003/000887	International filing date (day/month/year) 19-11-2003	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC See Supplemental Box		
Applicant Biofons LTD et al		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

Date of submission of the demand 07-06-2005	Date of completion of this report 20-01-2006
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of: Cover sheet

INTERNATIONAL PATENT CLASSIFICATION (IPC) :

G01N 21/55 (2006.01)

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Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>6-9, 16-21</u>	YES
	Claims	<u>1-5, 10-15, 22</u>	NO
Inventive step (IS)	Claims	<u>6-9, 16-21</u>	YES
	Claims	<u>1-5, 10-15, 22</u>	NO
Industrial applicability (IA)	Claims	<u>1-22</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: EP 0575132 A1
D2: GB 2268800 A
D3: EP 0341927 A1
D4: WO 03034046 A1

The invention relates to surface plasmon resonance measurements and solves the problem with changing direction of the reflected beam when the prism is rotated.

Document D1, which is considered to represent the closest prior art, discloses a method and a device for carrying out surface plasmon resonance measurements. A laser beam 113 is directed through a semi-cylindrical prism 101 onto a thin, planar metal layer 106 in an angle of incidence. A resonance phenomenon is caused and the reflected beam is reflected further with a mirror to a detector 108 which measures the change of intensity of the beam, caused by the resonance phenomenon. The source, detector and SPR surface are held in fixed positions when the incidence angle is varied by means of prisms 110, 111. See column 3, line 22-column 5, line 14.

A method and device according to independent claims 1 and 11 and also dependent claims 3-5, 10, 13-15, 22 are known from document D1. Thus, the invention defined in claims 1, 3-5, 10, 11, 13-15 and 22 is not new and consequently lacks novelty and inventive step.

Documents D2-D4 disclose similar devices for carrying out surface plasmon resonance measurements comprising a mirror for

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

reflecting the reflected beam to the detector. In D4 the reflected beam is reflected further with a planar mirror 25, 117 arranged in plane parallel relation to the planar surface. Consequently, the subject matter of claims 1, 2, 11 and 12 is previously known from D4 and therefore lacks novelty.

To sum up, the invention claimed in claims 1-5, 10-15 and 22 lacks novelty (N). The invention defined in claims 6-9 and 16-21 is novel and is considered to involve an inventive step. All claims have industrial applicability (IA).